

Title (en)
Tyre inflation station and method to inflate tyres

Title (de)
Reifenfüllstation und Verfahren zur Reifenfüllung

Title (fr)
Station de gonflage de pneumatiques et méthode de gonflage de pneumatiques

Publication
EP 1671820 A3 20110406 (DE)

Application
EP 05027497 A 20051215

Priority
DE 102004062329 A 20041220

Abstract (en)
[origin: EP1671820A2] The station has a tire filling chamber(4) with two or more filling rings(6) of different diameters whose edges can be aligned against the side surface of a tire. The tire filling chamber comprises a plate(5) which can move along the tire(1a) and wheel(1b) axis and a separate filling ring which can be moved to a central position on the same axis. The filling plate can be moved against the edge of the centrally arranged filling ring which faces away from the side face of a tire and can move together with the adjacent filling ring. The edge of the filling ring(6) has a radially inward extending annular disc-shaped collar at a right angle to the filling ring axis. A cylindrical protrusion of the filling plate(5) fits perfectly in a circular opening in the disc-shaped collar with entry aided by conical sections. Filling rings, preferably six of them, each of different diameter move on a circular path, e.g. on a carousel, or a linear path transverse to the axis of the tire to align with the tire axis. Filling rings are mounted on a transporting unit(20) for presentation to the tire axis. Each filling ring is connected by at least two, preferably three, elastic members to a fork shaped holder of the moving unit. Each filling ring can move axially on the moving unit and is held in a base position by a spring system, preferably a gas spring(21), steel compression spring or a pneumatic cylinder under permanent pressure. The choice of filling ring depends on the diameter of the tire and/or rim. Independent claims are included for a process for filling a tire mounted on a rim in the station in which a filling chamber(4) comprising filling plate(5) and separate filling ring(6), which has been moved to the same axis, is formed on the tire axis so that a ring shaped access is produced and both parts move together. The other side face of the tire is sealed against a supporting and sealing plate(3) comprising an assembly of several sealing parts(10,10',10'').

IPC 8 full level
B60C 25/05 (2006.01)

CPC (source: EP US)
B60C 25/05 (2013.01 - EP US); **B60C 25/132** (2013.01 - EP US); **B60C 25/145** (2013.01 - EP US)

Citation (search report)
• [XA] DE 19801455 A1 19990722 - KUERTEN KONRAD [DE]
• [AD] DE 10007019 A1 20010823 - SCHENCK ROTEC GMBH [DE]

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